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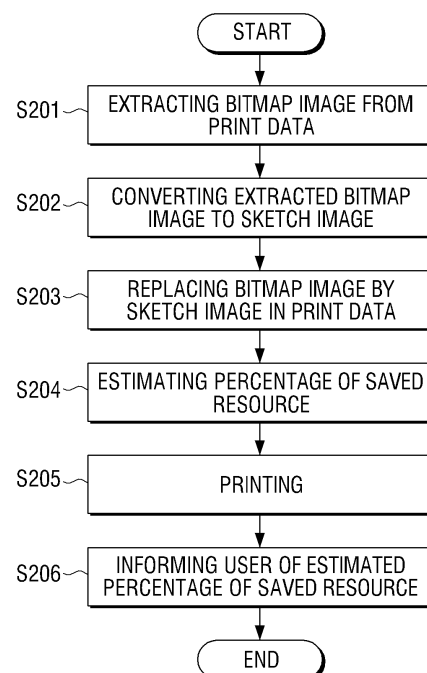
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(54) **Image forming apparatus and image forming method**

(57) An image forming apparatus is disclosed. The apparatus comprises a communication interface unit (930) to receive print data; an extraction unit (940) to extract a bitmap image from the received print data; a sketch image generating unit (950) to generate a sketch image by using the extracted bitmap image; and an image forming unit (960) to replace the bitmap image by the generated sketch image in the received print data and to print the print data with the replaced sketch image.

FIG. 2



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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X,D A	JP 2005 017562 A (KYOCERA MITA CORP) 20 January 2005 (2005-01-20) * paragraph [0025] - paragraph [0041]; figures 3-8 *	1,6-8, 10,11 15	INV. H04N1/40 H04N1/409 G06F3/12 G06T5/00
X,D	EP 0 920 190 A2 (XEROX CORP [US]) 2 June 1999 (1999-06-02) * paragraph [0005] - paragraph [0013]; figures 1-3 *	1,9,10	ADD. G06T11/00
A,D	WEN-FU LEE ET AL: "Efficient construction of saliency map", PROCEEDINGS OF SPIE, vol. 7240, 5 February 2009 (2009-02-05), pages 724018-724018-8, XP055052682, ISSN: 0277-786X, DOI: 10.1117/12.811166 * the whole document *	5,12	
A	KANG H ET AL: "Coherent Line Drawing", INTERNATIONAL SYMPOSIUM ON NON-PHOTOREALISTIC ANIMATION AND RENDERING, XX, XX, no. 5TH, 4 August 2007 (2007-08-04), pages 43-50, XP002469944, * the whole document *	1-15	TECHNICAL FIELDS SEARCHED (IPC) H04N G06F
T	ILIA V. SAFONOV ET AL: "Bio-inspired color sketch for eco-friendly printing", PROCEEDINGS OF SPIE, vol. 8292, 22 January 2012 (2012-01-22), page 829218, XP055052622, ISSN: 0277-786X, DOI: 10.1117/12.906736 * the whole document *		
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 December 2014	Examiner Seytter, Fritz
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 14 18 1443

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The members are as contained in the European Patent Office EDP file on
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23-12-2014

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2005017562 A	20-01-2005	NONE	
EP 0920190 A2	02-06-1999	DE 69835931 T2 EP 0920190 A2	04-01-2007 02-06-1999

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82